RESULTS

The study included 200 mothers and infants pairs whose infants fed infant formula milk, proportionally allocated in Alexandria (MCH center/ family health centers) according to live births.

A structured person-to-person interview was conducted with each mother .The mothers exposed to counseling by using educational material in the form of photos and the choice of the type of educational material was chosen randomly.

After exposure to the intervention, mothers were referred to a specialist in lactation management (SLM/IBCLC) in Alexandria to assist them to reestablish breastfeeding then a follow-up questionnaire for the mothers was done 6-8 weeks later through phone calls to assess the outcome of this intervention.

Mothers who were not able to go to the SLM or IBCLC were followed up by phone calls during 6-8 weeks. The attitude of the mothers towards phone calls:

- Most of the mothers were excited and delighted by getting support through phone calls by a medical person whom they have met in the clinic. This boosted their self-esteem and encouraged them to continue to do trials for relactation.
- A very few of them , especially those exposed to caution approach were in denial and were defensive and requested not to be contacted again.
- Some expressed their trials were futile and felt that it was an impossible mission to achieve and felt safer with giving formula, probably

pressured by the surrounding family members.

Table (2) shows frequency distribution of mothers under study according to the socio-demographic characteristic at first contact with mothers, 11% of fathers were illiterate while 20.5% of mothers were illiterate, the majority of babies (87%) were more than 1-month age and 81.5% of the mothers were having more than one child.

Table (3) shows frequency distribution of the mothers under study according to perinatal history in which all of mothers had initiated their children while none of the mothers breastfed their infants in the delivery room and none of the mothers made skin to skin after delivery.
The majority of babies (83.0%) were full term and nearly more than half of the babies (56.7%) were delivered by cesarean section ,more than three quarter (87.5%) were delivered by a doctor and 79.5% were delivered in the hospital while 20.5% delivered at home.

Table (4) shows the knowledge of mothers about breastfeeding benefits at first contact with mothers**.** It was found that more than half of the sample (57.0%) knew that breastfeeding lead to less incidence of gastroenteritis and 43.0% knew that it is a way of birth control on the other hand more than half of sample (57.0%) did not know the advantage of breastfeeding to the mother. More than half of the sample (64.0%) knew that the disadvantage of bottle-feeding is causing diarrhea while 22.0% did not know the disadvantage of bottle-feeding.

Table (5) shows frequency distribution of knowledge of mothers about practices related to breastfeeding continuity at first contact with mothers in

which 26.5% of the sample knew about advantage of skin-to-skin included less crying while nearly three quarter of sample (73.5%) did not know and advantages to skin-to-skin care.

-Nearly more than half of the sample (51.5%) knew the advantage of feeding on cue is less crying while 48.5% did not know also nearly three quarter of the sample (70.5%) knew that the disadvantage of supplement before 6 month is causing diarrhea and more than half of the sample (53.5%) knew that the disadvantage of the pacifier is causing diarrhea and 12.5% is breastfeeding refusal..

-More than half of the sample (54.5%) did not know that increasing breastfeeding lead to the increase milk supply while 50.5% of the sample knew that increasing duration of breastfeeding is a way to increase their milk supply.

-Nearly three quarter of the sample, (73.0%) did not know about breast milk expression and more than half of the sample (54.0%) knew that the right duration of breastfeeding is 2 years.

Table (6) shows frequency distribution of the mothers under study according to breastfeeding practices before discontinuing lactation in which the majority of the mothers under study breastfed their babies after 2 and 3 hours after delivery (40.5%, 36.5% respectively), none of the sample mothers breastfed their babies after half an hour.

-Around 66.5% of the mothers were separated from their babies after delivery; the majority was separated for up to two to three hours (45.1% and 34.6% respectively).

-All of the mothers breastfed their babies day and night and more than three quarter of the sample (81.4%) breastfed them on cue (schedule) in which the

interval between feeds was 1 hour and 11/2 hour (35.5% and 35.0% respectively).

-Nearly half of the mothers (46.55%) offered pacifier to their babies and introduced it through 1 week or 1 month (40.8% and 46.2% respectively).

Table (7) shows frequency distribution of mothers according to time of introduction of supplements at first contact with mothers in which nearly half of the mothers (47.0%) introduced supplements after one month, 17.5% after 15 days of delivery while 35.5% after 45 days of delivery. The cause in more than half of sample (66.5 %) was low milk supply, 26.5 % of the mothers said that the baby stopped breastfeeding by itself (breastfeeding strike) and nearly half of the sample (49.5%) was nipple soreness. More than half of the mothers (70.5%) gave artificial milk and all of mothers used the bottle to give supplements.

Table (8) shows frequency distribution of mother under study according to referral to IBCLC or responding to phone counseling by SLM. More than three quarter of the mothers (85.0%) responded to counseling by phone only while 15.0% were referred to lactation consultant. The major cause that mothers could not go to the lactation consultant in the clinic was inaccessibility as the clinic with IBCLC is present in Atfal Elraml Hospital is in the center of Alexandria, it is distant for 86.4% of the sample, since Alexandria is along steak of land across the coast so each area is self sufficient with its own scope of district so mothers don't move easily from one district to other one.

Table (9) shows Frequency distribution of mothers followed up by phone (170) in relation to compliance to relactation protocol in which more than three quarter of mothers (76. 4%) were accessed by phone three to four

times (35.3% and 41.1% respectively).Nearly three quarter (69.2%) stopped offering the pacifier out of the 78 users, 80.2% were practicing rooming in out of 131 non-roomed in, nearly three quarter 74.1% are practicing skin to skin care, 70.0% were using drugs or herbal drinks to reestablish their milk supply and 70.6% were using the nursing supplementer aids to increase the milk supply from the breast.

Table (10) shows frequency distribution of mothers under study followed up in the Atfal Elraml Hospital clinic by IBCLC (30) in relation to compliance to relactation protocol in which most of the mothers (83.3%) went to the lactation consultant three to four times (46.7 and 36.6% respectively).Nearly three quarter 73.3% stopped using the pacifier out of 15 users, 76.0% were practicing rooming in out of 25 non-roomed in, 73.3% were practicing skin to skin care, 73.3% were using drugs or herbal drinks to reestablish their milk supply and 76.7% were using the nursing supplementer aids to increase the milk supply from the breast.

The figures show the comparison between mothers who were followed up in the clinic with those were followed by phone according to their response to the relactation protocol show that in all the six figures the P-value was more than 0.05,this means that there was not significant difference between the two types of follow up (phone versus visits to the clinic) according to the response of the mothers to the relactation protocol.The following figres are:

Figure (1): Comparison of frequency of calls by phone versus visits to the clinic by percent distribution.

Figure (2): Comparison of mothers who discontinued pacifier by type of follow –up (phone versus clinic) using frequency distribution.

Figure (3): Comparison of mothers who started practicing rooming in by type of follow –up (phone versus clinic) using frequency distribution.

Figure (4): Comparison of mother's practiced of skin-to-skin care as a method to ensure her baby to feed at her breast by type of follow –up (phone versus clinic) using frequency distribution.

Figure (5): Comparison of mother's response to use of drugs or herbal drinks to reestablish breastfeeding by type of follow –up (phone versus clinic) using frequency distribution

Figure (6): Comparison of mother's response to use of nursery supplementer aids to stimulate relactation by type of follow –up (phone versus clinic) using frequency distribution.

Table (11) shows frequency distribution of mother infant dyad under study according to success of relactation at the end of the study**.** It shows that only 10.0% of the mothers successfully relactated compared 90.0% of the mothers who triad did not achieve relactation.

Table (12) shows frequency distribution of causes of discontinuation of relactation protocol by the mothers (as perceived by mothers) in which more than three quarter of mothers (76.0%) did not return to breastfeeding due to feeling tired from the trials to relactate and no response of the mother breast for relactation (34.4% and 41.6% respectively) while refusal of the baby in 16.6% of the sample.

Table (13) shows frequency distribution of the 20 mothers who relactated according to their practice after follow up in which 40.0% of the mothers breastfed their babies 2 times during the day and 45.0% of them breastfed their babies 3 times during the night. Nearly three quarter of the mothers (70.0%) were supported by their husbands. All of the mothers were still giving supplements and the type of supplement was artificial milk. All of the mothers expressed their breast and gave it to their babies; nearly three quarter of mothers (70.0%) expressed their breast two to three times per day (40.0% and 30. 0% respectively). Half of the mothers (50.0 %) used the cup to give their expressed milk while 30.0% used the bottle.

Table (14) shows the effect of relactation on the 20 babies in which 65.0% of the mothers reported an increase in the weight of their babies and the number of urination were five time and six times in 70.0% to 30.0% respectively. Nearly three quarter of babies (75.9%) there was not incidence of illness in the previous month.

Table (15) shows comparison between mothers who achieved relactation and who failed to relactate according to sociodemographic characteristics of whom nearly half of the fathers (48.4%) and nearly more than half of the mothers (55.8%) who did not relactate were either illiterate or could only read and write. On the other hand, according to the mothers who relactated, more than half of the fathers (65.0%) and three quarter of the mothers (75.0%) achieved secondary education. The P-value was <0.05 so there was significant difference.

-Nearly three quarter of the babies (70.0%) who achieved relactation were one month old at time of starting the relactation protocol, compared to nearly three quarter (66.9%) of the babies who did not relactate , their ages at time of

starting the relactation protocol were 2 months and 3 months (33.7% and 33.2% respectively). The P-value is <0.05 so there is significant difference.

-More than three quarter of the mothers who relactated (85.0%) were having one baby, compared to the mothers who did not relatate, nearly half of them (43.2%) were having three babies. The P-value was <0.05 so there was significant difference.

Table (16) shows comparing the success of relactation by methods and types of educational exposure in frequency distribution in which that half of the mothers (50.0%) who relactated respond to promotion messages of the advantages of breastfeeding and nearly half of them (45.0%) responded to problem solving messages on the other hand only 5.0% respond to cautioning messages of the hazards of artificial milk. The P-value was <0.05 so there was significant difference.

Table (17) shows the comparison between the three educational approaches according to the response of the mothers under study to change their practice in which there was a significant difference in the response of the mothers exposed to the three educational approaches to change of their practices as the P-value was <0.05. Nearly most of the mothers (84.4%) exposed to the promotion approach and 90.9% of the mothers exposed to the cautioning approach stopped using the pacifier on the other hand only 45.9% of the mothers exposed to the problem solving approach stopped using the pacifier. Most of the mothers (98.6%) exposed to the promotion approach started practicing skin –to-skin care after counseling. The promotion and problem counseling had a significant effect on mothers (83.1% and 78.1% respectively) than cautioning approach counseling (49.2%) to let mothers

started using drugs to re-establish breastfeeding. The promotion approach counseling had a significant effect on most of the mothers (98.6%) to start using the nursing supplementer aids to stimulate milk production. The cautioning approach counseling, its effect was the least to let the mothers started to express their breast to stimulate breast milk production. The promotion and problem counseling had a significant effect on mothers (70.0% and 77.8% respectively) on mothers who relactated to use the cup or cup and spoon to give their expressed breast milk. On the other hand there was no significant difference between the three approaches to let the starting rooming in as the P-value was 0.109 more than 0.05.

Figure (7) and figure (8) show the Comparison between the three educational approaches to show the response of the mothers to change their practice.